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10/026,144	12/21/2001	Christiaan M.H. Mets	120 02220 US	8222

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EXAMINER

PADMANABHAN, KAVITA

ART UNIT	PAPER NUMBER
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2161

MAIL DATE	DELIVERY MODE
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07/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/026,144

Applicant(s)

METS ET AL.

Examiner

Kavita Padmanabhan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-12, 15-24 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-12, 15-24 and 26-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 3, 7, 15, 19, and 26-28 have been amended.
2. Claims 29-31 have been added.
3. Claims 3-12, 15-24, and 26-31 are pending.
4. Claims 3-12, 15-24, and 26-31 are rejected.

Claim Objections

5. **Claims 27** is objected to because of the following informalities:

In regards to **claim 27**, it is suggested that the phrase “and” at line 3 of step (a) be changed to --and/or--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **Claims 3-12, 15-24, and 26-31** rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to **claims 26-28**, there does not appear to be support in the applicant's specification for "collecting with a monitor said *output data* of an industrial process and providing said *output data* to said computer" or for the other recitations of output data throughout the claims.

Also with respect to **claims 26-28**, there does not appear to be support in the applicant's specification for the limitation "to organize *separate storage volumes of said database* for said classified attribute types".

With respect to **claims 29-31**, there does not appear to be support in the applicant's specification for "wherein an output of said industrial process is a time varying signal, and wherein said monitor comprises at least one sensor that receives said time varying signal and provides it to said computer as at least a portion of said output data". The applicant has also not directed the examiner to portions of the specification that might contain such needed support.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claims 3-12, 15-24, and 26-31** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to **claims 26-28**, section (d) of the claim, reciting "to use said data structure in a manner that permits access to said database *by* said activities, events and attributes that are identified by step (a) *to store* said output data in said storage volumes according to said data structure and in response to a request to retrieve from at least one of said storage volumes that output data that corresponds to at least one of said identified activities, events or attributes that is

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includes in said request” renders the claims unclear. It is unclear how the data structure is used to permit access to the database *by activities, events, and attributes* to store the output data. Furthermore, it is suggested that the phrase “and in response to a request to retrieve” be changed to “and, in response to a request, to retrieve” for the sake of clarity.

The examiner will apply prior art to this claim as best understood in light of the above rejections.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 3-12, 15-24, and 26-31** are rejected under 35 U.S.C. 102(b) as being anticipated by **Goldring** (US 5,613,113).

In regards to **claim 26**, **Goldring** teaches a method for using a computer to define, store and retrieve output data of an industrial process, said method comprising:

collecting with a monitor said output data of said industrial process and providing said output data to said computer (**Goldring**; col. 1, lines 38-41; col. 3, lines 27-31 – “*computer process that involves a sequence of events would be a commercial order filling or banking system*” and “*correlate events in an activity log with time series data of interest*” – constitutes collecting and operating on data of an industrial process in that the data pertains to the “commercial industry” or the “banking industry.”);

operating said computer with a program

(a) to identify, in response to input data entered by a user, one or more events and/or activities of said industrial process and one or more attributes of said events and/or activities (**Goldring; col. 3, lines 36-58; col. 5, lines 53-56 – “identifying the recorded events having the characteristic of interest” and “user can interactively communicate with the data base manager”**);

(b) to classify said events, activities and attributes that are identified by step (a) according to a data structure that comprises at least one event type or at least one activity type and a plurality of attribute types (**Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3 – figure 3 shows a data structure having event types, such as update events, and a plurality of attribute types, such as event name and RBA**);

(c) to organize separate storage volumes of said database for said classified attribute types (**Goldring; Fig. 2; col. 5, lines 2-23 – “the mainframe computer 12 includes a data base comprising a plurality of data tables 26 including user tables 28 defined by the users”**);

(d) to use said data structure in a manner that permits access to said database by said activities, events and attributes that are identified by step (a) to store said output data in said storage volumes according to said data structure and in response to a request to retrieve from at least one of said storage volumes that output data that corresponds to at least one of said identified activities, events or attributes that is included in said request (**Goldring; col. 5, lines 2-23, 48-59; col.**

6, lines 18-20; col. 9, lines 52-60; Fig. 3 – *“If the activity log is later consulted, the time stamp values can be located with their corresponding transaction sequence numbers and accessed by users.”* - events and attributes are stored in the database tables and are retrieved based on user requests); and

(e) to provide said retrieved output data to a client device (**Goldring**; col. 5, lines 48-59; col. 9, lines 52-60; Fig. 3 – *“The data base manager 30, for example, can comprise a software process that operates in accordance with Structures Query Language (SQL) requests”, “provides an interface for the users. A user can interactively communicate with the data base manager”, and “when a user requests a snapshot copy”* – data is retrieved from database and provided to user).

In regards to **claim 3**, **Goldring** teaches the method of claim 26, wherein at least one of said classified attribute types is a start time (**Goldring**; **Fig. 3**), and wherein at least one of said storage volumes is accessed according to said start time type for storage and retrieval of values of said attributes corresponding to at least one of said events and/or activities (**Goldring**; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3).

In regards to **claim 4**, **Goldring** teaches the method of claim 26, wherein at least one attribute of a plurality of said events and/or activities is common to at least one of said defined attribute types, and wherein said at least one storage volume of said database is allocated to all of

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said common attributes (**Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3; Fig. 2, reference characters 25, 32**).

In regards to **claim 5**, **Goldring** teaches the method of claim 26, further comprising compressing said output data which is stored in a first one of said storage volumes according to identity of values of said output data of said attributes of consecutive events and/or activities that have been allocated for storage in said first one of said storage volumes (**Goldring; col. 7, lines 20-61 – data of activity log is compressed and placed in the system tables based on the values of the event attributes**).

In regards to **claim 6**, **Goldring** teaches the method of claim 5, wherein said data structure further comprises a time stamp (**Goldring; Fig. 3**), and wherein said first one of said storage volumes is accessed according to said time stamp for storage and/or retrieval of said values of said output data, and wherein said values of said output data of a first event are retrieved from said first storage volume by using a value of a first time stamp for said first event or of a second time stamp value of a second one of said events that is earlier in time than said first time stamp value (**Goldring; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3**).

In regards to **claim 7**, **Goldring** teaches the method of claim 26, wherein a value of an attribute that is always the same for a specific one of said event or activity types is classified as static, and further comprising optimizing data storage in said first one of said storage volumes by omitting storage of a static value (**Goldring; col. 5, lines 7-16; col. 5, line 67 – col. 6, line 6 –**

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doesn't store the other attributes related to the user table that changed – only the update and the sequence number, because the others didn't change, and are therefore static).

In regards to **claim 8**, **Goldring** teaches the method of claim 26, wherein said industrial process is one of a plurality of industrial processes, and wherein said program operates said computer each of said plurality of processes using said data structure (**Goldring; col. 1, lines 25-52; col. 6, lines 26-29**).

In regards to **claim 9**, **Goldring** teaches the method of claim 8, wherein at least two of said plurality of industrial processes are different from one another (**Goldring; col. 1, lines 25-52; col. 6, lines 26-29**).

In regards to **claim 10**, **Goldring** teaches the method of claim 26, further comprising presenting data values of different ones of said events and/or activities that are defined as different event and/or activity types in any one of a plurality of formats to said client device (**Goldring; col. 6, lines 18-20; col. 5, lines 48-59; col. 9, lines 52-60; Fig. 3**).

In regards to **claim 11**, **Goldring** teaches the method of claim 10, wherein said plurality of formats are selected from the group consisting of: row format, column format and chart format (**Goldring; Fig. 3**).

In regards to **claim 12**, **Goldring** teaches the method of claim 26, further comprising developing a map structure for mapping diverse external names of said attributes and/or field contents thereof to a common internal attribute name and/or field content (**Goldring; col. 5, lines 30-31; col. 5, line 59 – col. 6, line 6; col. 6, lines 54-65; Fig. 3; Fig. 4; – updates, regardless of what type or how they are referred to externally, by a user for example, are internally stored as update operations; also, a table constitutes a map structure**).

In regards to **claim 30**, **Goldring** teaches the method of claim 26, wherein an output of said industrial process is a time varying signal, and wherein said monitor comprises at least one sensor that receives said time varying signal and provides it to said computer as at least a portion of said output data (**Goldring; col. 3, lines 36-58**).

Claims 27, 15-24, and 31 are rejected with the same citations given for claims 26, 3-12, and 30, respectively.

Claims 28 and 29 are rejected with the same citations given for claim 26 and 30, respectively.

Response to Amendment

12. Applicant's amendment filed 5/4/07 with respect to the claim objections have been fully considered. The corresponding objections have been withdrawn accordingly, however the new amendments to the claims have precipitated a new objection, as explained above.

Response to Arguments

13. Applicant's arguments filed 5/4/07 with respect to the 35 USC 112, 1st paragraph rejections prior art rejections have been fully considered. Some of the rejections have been withdrawn accordingly, while others have been maintained, as explained below.

Applicant argues at page 10 of applicant's remarks that there is support for "collecting with a monitor said *output data* of an industrial process and providing said *output data* to said computer" or for the other recitations of output data throughout the claims. Applicant points to certain portions of the specification as allegedly containing such support. However, the examiner asserts that although there appears to be support for "process data", there still does not appear to be support for "output data" and these two terms are not synonymous.

Applicant argues at page 10 of applicant's remarks that there is support for "to organize *separate storage volumes of said database* for said classified attribute types". Applicant points to certain portions of the specification as allegedly containing such support. However, the examiner asserts that the portions cited by the applicant do not appear to contain support for this limitation. In fact, they do not appear to even relate to this limitation.

14. Applicant's arguments filed 5/4/07 with respect to the 35 USC 112, 2nd paragraph rejections prior art rejections have been fully considered. Some of the rejections have been withdrawn accordingly, while others have been maintained, as explained below.

In regards to claims 26-28, section (d) of the claim, reciting "to use said data structure in a manner that permits access to said database *by* said activities, events and attributes that are identified by step (a) *to store* said output data in said storage volumes according to said data structure and in response to a request to retrieve from at least one of said storage volumes that

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output data that corresponds to at least one of said identified activities, events or attributes that is includes in said request” still renders the claims unclear. It is unclear how the data structure is used to permit access to the database *by activities, events, and attributes* to store the output data. In other words, it is unclear how the activities, events, and attributes access the database to store the output data which is itself classified according to activities, events, and attributes.

Furthermore, it is suggested that the phrase “and in response to a request to retrieve” be changed to “and, in response to a request, to retrieve” for the sake of clarity.

15. Applicant's arguments filed 5/4/07 with respect to the prior art rejections have been fully considered but they are not persuasive.

Applicant argues at 14 of applicant's remarks that Goldring does not teach an industrial process and that a banking process is not an industrial process. The examiner respectfully disagrees and asserts that the applicant has not explicitly defined the term “industrial process” in the specification and certainly has not defined it in a way that would exclude the processes of the banking industry or any other commercial industries.

Applicant argues at 14 of applicant's remarks that Goldring does not teach collecting the output data with a monitor. This argument has been addressed by the examiner in the previous Office Action. To reiterate, the examiner asserts that Goldring does indeed teach collecting with a monitor said output data of said industrial process and providing said output data to said computer (Goldring; col. 1, lines 38-41; col. 3, lines 27-31). Goldring teaches recording activity, event, and attribute data from an industrial process, for example, the “commercial industry” or the “banking industry”, which involves monitoring and collecting the data in order to record it and organize it in a database.

Applicant argues at 15 of applicant's remarks that Goldring does not teach the identifying, classifying, and organizing steps of claims 26-28. The examiner respectfully disagrees. The examiner asserts that Goldring teaches identifying events and attributes (Goldring; col. 3, lines 36-58 – "identifying the recorded events having the characteristic of interest"), classifying the events and attributes according to a data structure (Goldring; Fig. 3), and organizing the attribute data in user tables and in the activity log (Goldring; Fig. 2; col. 5, lines 2-23), thereby meeting the language of the claims.

Applicant argues at page 15 of applicant's remarks that Goldring stores the data in a time series manner, which is allegedly contrary to the claimed invention. The examiner respectfully disagrees and asserts that Goldring, while including time series data, still meets the language of the claims, which merely recites that the data be stored according to the data structure (Goldring; Fig. 3 shows the data stored in the data structure) and that the data structure the data structure include events and attributes including at least one event type and a plurality of attribute types, which Fig. 3 of Goldring also depicts. Therefore, the teachings of Goldring are not contradictory to the claimed limitations.

Applicant argues that Goldring teaches retrieving data between two time markers and not from a storage volume, as recited in the claims. The examiner respectfully disagrees with applicant's argument and asserts that the data of Goldring is clearly stored in storage volumes of the database, from which they are then retrieved. Again, the examiner asserts that the teachings of Goldring are not contradictory to the claimed limitations.

Applicant argues that Goldring teaches storing and retrieving time series data and therefore does not teach the limitations of claims 3 and 15. However, the applicant has not

explained why the limitations are allegedly not taught. Again, the examiner respectfully disagrees and asserts that time series data does not preclude the reference from meeting the limitations of the claims.

Applicant argues that Goldring does not teach the limitations of claims 7 and 19. The examiner respectfully disagrees and asserts that Goldring does not store the other attributes related to the user table that changed and rather only stores the update and the sequence number, because the others did not change, and are therefore static (Goldring; col. 5, lines 7-16; col. 5, line 67 – col. 6, line 6), thereby meeting the language of the claims.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-8352**. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

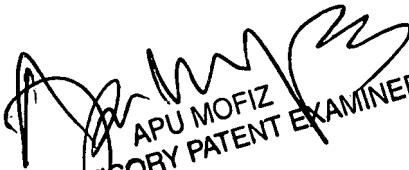
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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July 17, 2007

KL


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